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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/659,264	09/11/2003	Nobuyuki Nakamura	4492-0104P	3531
2292	7590	03/28/2006		
BIRCH STEWART KOLASCH & BIRCH PO BOX 747 FALLS CHURCH, VA 22040-0747			EXAMINER LUONG, VINH	
			ART UNIT	PAPER NUMBER
			3682	

DATE MAILED: 03/28/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/659,264

Applicant(s)

NAKAMURA, NOBUYUKI

Examiner

Vinh T. Luong

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 16 August 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-4 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 and 3 is/are rejected.
- 7) ☒ Claim(s) 2 and 4 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.



Vinh T. Luong  
Primary Examiner

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 9/11/03.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

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1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

2. Claims 1 and 3 are rejected under 35 U.S.C. 102(a) as being anticipated by admitted prior art (*i.e.*, Applicant's Figs. 2A-3B).

Regarding claim 1, Applicant's Figs. 2A-2C teach a cam rotation control mechanism comprising: a rotatable cam 21; a clutch mechanism 23a for transmitting driving power of a rotating device (a motor. *Ibid.*, paragraph [0004] of the specification) to the cam 21 and interrupting the transmission of driving power to the cam 21; and a home position setting device (*i.e.*, a cam rotation control mechanism. *Ibid.*, paragraphs [0004]-[0007] of the specification) for causing the cam 21 to turn to a home position (Fig. 2C) when the transmission of driving power to the cam 21 is interrupted by the clutch mechanism 23a.

The attached *Merriam-Webster's Collegiate Dictionary, Tenth Edition, 1999* defines a clutch as "a coupling used to connect and disconnect a driving part and a driven part of a mechanism." Since the detecting portion 23a is used to connect and disconnect the driving and driven part of the cam 21 as described in paragraphs [0004]-[0007] of the specification, the portion 23a "reads on" the claimed clutch mechanism.

Similarly, Applicant's Figs. 3A and 3B teach a cam rotation control mechanism comprising a rotatable cam 31; a clutch mechanism 33 for transmitting driving power of a rotating device (a motor. *Ibid.*, paragraph [0008] of the specification) to the cam 31 and interrupting the transmission of driving power to the cam 31; and a home position setting device

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(i.e., a cam rotation control mechanism. *Ibid.*, paragraphs [0009]-[0012] of the specification) for causing the cam 31 to turn to a home position (Fig. 3B) when the transmission of driving power to the cam 31 is interrupted by the clutch mechanism 33.

Regarding claim 3, the home position setting device of the admitted prior art in Figs. 2A-2C or 3A-3B is capable of pulling the cam 21 or 31 with a predetermined pulling force when the cam 21 or 31 is in the home position as shown in Fig. 2C or 3B. *Ibid.*, paragraphs [0004]-[0014] of the specification.

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1 and 3 are further rejected under 35 U.S.C. 102(b) as being anticipated by Branscomb (USP # 2,915,161).

Regarding claim 1, Branscomb teaches a cam rotation control mechanism comprising: a rotatable cam 27, 28, 30, 31, 46, etc.; a clutch mechanism 4 for transmitting driving power of a rotating device 1 to the cam 27, 28, 30, 31, 46, etc. and interrupting the transmission of driving power to the cam 27, 28, 30, 31, 46, etc.; and a home position setting device 10, 48, 65, etc. for causing the cam 27, 28, 30, 31, 46, etc. to turn to a home position (Fig. 4) when the transmission of driving power to the cam 27, 28, 30, 31, 46, etc. is interrupted by the clutch mechanism 4. *Ibid.*, col. 2, line 51 through col. 5, line 5.

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Regarding claim 3, Branscomb's home position setting device 10, 48, 65, etc. is operative to pull the cam 27, 28, 30, 31, 46, etc. with a predetermined pulling force when the cam 27, 28, 30, 31, 46, etc. is in the home position. *Ibid.*, claims 1-13.

5. Claims 2 and 4 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: Takahashi (spring 11), Hara et al. (spring 11), Kawai (spring 46, 55, etc.), Fisher (spring 124), Orville (spring 60), and Ichikatai (Fig. 6a).

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vinh T. Luong whose telephone number is 571-272-7109. The examiner can normally be reached on Monday - Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Ridley can be reached on 571-272-6917. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Luong

March 27, 2006



Vinh T. Luong  
Primary Examiner